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ABSTRACT

The central objective of this study was to draw interdependent relationships between preschoolers' social functioning and their modes of social thought. Assessment of 67 four-year-olds was done through systematic observations of social behavior, including social participation, type of play, and affective involvement in the preschool setting, as well as specific evaluation of the multiple aspects of their social thought, including perspective taking, prosocial comprehension, social representation, and self-esteem. Analyses revealed four modes of social thought: (1) cohesion-centered; (2) insecure-self-centered; (3) conflict-centered; and (4) socially-centered. In line with a sociogenetic perspective of social information processing, both social and nonsocial activities in the preschool setting, as well as transactional emotional state, were implicated with individual differences in modes of social thought. Children who were conflict-centered were more involved in constructive play with objects, whereas socio-centered children were more affectively neutral and reflexive. Transactions with adults were positively correlated with agonistic processing and negatively correlated with ambiguous processing. (Contains 10 references.) (Author/KB)

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PRESCHOOLERS' ACTIONS AND SOCIAL REPRESENTATIONS: A SOCIOGENETIC APPROACH TO INFORMATION PROCESSING

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ABSTRACT

The central objective of this study is to draw interdependent relationships between preschoolers' social functioning and their modes of social thought. Assessment of 67 four-year-old children was done through systematic observation of their behaviors in the preschool setting and specific evaluation of the multiple aspects of their social thought. Four modes of social thought were found: (a) Cohesion-Centered, (b) Insecure-self-Centered, (c) Conflict-Centered and (d) Socially-Centered. In line with a sociogenetic perspective of social information processing both social and non-social activities in the preschool setting, as well as transactionnal emotional state, were implicated with individual differences in modes of social thought.

Key words : Socio-cognitive development; Preschool education; Systematic observation; Individual differences.

INTRODUCTION

Social information processes are typically presented as leading to social behavior which, in turn, is the basis of social adjustment within the peer group (Crick & Dodge 1994). A sociogenetic perspective (Strayer, 1989; Pagé et al. 1998) rather stresses that the nature of children's social activities constrains the emergence of their social representations. Indeed, in her daily life at the daycare center, the child faces multiple transactionnal constraints for which adaptative socio-cognitive strategies have to be found (Noël, Leclerc & Strayer, 1990). Still, little is known about the potential impact of children's individual functioning in the peer group on social construction of thought. Furthermore, very few studies have involved assessments of children's adaptation using simultaneously systematic observation of children's behaviors in the preschool setting and specific

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description of the multiple aspects of their social thought. The central objective of this study is to draw interdependent relationships between preschoolers' social functioning and their modes of social thought. Gender will also be considered as a potential variable of social thought modulation.

METHODOLOGY

SUBJECTS: 67, 4-year-old children (38 girls; 29 boys) enrolled in five daycare centers of Quebec city's low-income 'milieu'.

PROCEDURE AND INSTRUMENTS:

(1) Social Thought: Children were interviewed individually by a familiar female experimenter. Four types of socio-cognitive tasks were proposed:

(a) Emotional and cognitive Perspective Taking (1)

(b) Prosocial Comprehension (2)

(c) Social Representation: A serie of videotaped vignettes showing two preschool children in interaction were presented to the child. The adequacy of subjects' response to questions designed to evaluate their perception was coded in terms of the presented social context (affiliatives(3), agonistics(4) and ambiguous(5) episodes). Children's hypothetical prosocial reactions (6) in these contextualised episodes were also coded.

(d) Self-esteem: In the present study, two indices were used: the first indexed children's perception of mother-child relationship (7) while the other assessed global self-perception (7).

Measures (a), (b), and (c) were adapted from Strayer and Collaborators (1980-1996); measure (d) is based on a french version of Harter and Pike (1980) Pictorial Scale of Perceived Competence for Young Children.

Three independent coders analyzed the content of children's discourse. Inter-coder reliability indicated Pearson correlation > .90. From these socio-cognitive tasks, 8 scores were computed for each subject.

(2) Children's Social Functioning was studied with a structured molar observational system developed by Pagé & Gravel (1997) from diverse sources. Four different characteristics were evaluated:

a) Social participation: The first three categories are based on Parten's taxonomy (1932), while the forth one indexed child's interactions with adults.

(1) Non social activities (inoccupied and solitary);
(2) Pre-social activities (observer and parallel);
(3) Social activities (associative and cooperative);
(4) Interactions with adults.

b) Nature of social participation: Based on Strayer's taxonomies (1980, 1991), child's social activity is coded in terms of (5) affiliative exchange (approachs, contacts, shares, signals, verbalizes, observes, etc.) and (6) agonistic exchange (attacks, threatens, object/position struggle, submits, etc.)

c) Type of play : Based on Smilansky (1968) and Aureli and Colecchia (1996), play is described in terms of:

(7) Psychomotor play;
(8) Constructive play;
(9) Symbolic play.

d) Affective involvement : Based on Naud (1988), emotional state is evaluated through three categories:

(10) negative affect;
(11) neutral affect ;
(12) positive affect.

During four weeks each child was filmed for a total of 36 minutes. Coding procedures involved repeated instantaneous real-time samples collected at 10 seconds intervals. For each scale, inter-coder reliability (Kappa) was higher than .80. From these systematic observations, 12 scores were computed.

RESULTS

(1) Table 1, 2 and 3 show significant correlations between variables:

Table 1 : Social thought variables :

	1	2	3	4	5	6	7	8
1. Role taking	_	.41**				.23**		
2. Prosocial comprehension		_					.43**	
3. Affiliative processing			_	-.33**	.32**	.39**	-.35**	-.28*
4. Agonistic processing				_	-.46**	-.29*	.29*	
5. Ambigous processing					_	.27*		
6. Prosocial reactivity						_		
7. Relationsip with mother							_	.59**
8. Self Esteem								_

Table 2: Social functioning variables :

	1	2	3	4	5	6	7	8	9	10	11	12
1. Non social	_	-.53**	-.34**		-.98**					.44**		-.33**
2. Pre social		_	-.48**	-.42**	.54**	-.42**	.34**	.25*			.27*	
3. Social			_		.32**				.33**		-.36**	.40**
4. Inte. adult				_								
5. Affi. exchan.					_	-.25*				-.50**		.38**
6. Ago. exchan.						_				.33**		
7. Psy. motor							_		-.46**	-.42**		
8. Con-struc.								_				
9. Sy-mbolic									_		-.25*	
10.Neg. affect										_	-.39**	-.29**
11.Neu. affect											_	-.77**
12. Po. affect												_

Table 3

Social thought and social functioning :

	1. Role taking	2. Proso. compr.	3. Affili. process	4. Agon. process	5. Ambi. process	6. Proso. reacti.	7. Relat. mother	8. Self esteem
2. Pre-social			.36**					
4. Interaction with adult				.24*	-.39**			
5. Affiliative exchange	.24 *							
10.Negative affect	-.26*							
11.Neutral affect	.40**	.33**					.31**	

* p<.05 ** p<.01

(2) Modes of Social Thought were derived by a Hierarchical Cluster Analysis performed to compare similarity in children's profiles across the eight dimensions of social thought. This analysis revealed (Figure 1) four modes of social thought in children: (a) Cohesion-Centered (15 girls, 7 boys), (b) Insecure-self-Centered (13 girls, 8 boys), (c) Conflict-Centered (2 girls, 7 boys), and (d) Socially-Centered (8 girls, 7 boys).

(3) Social functioning and social thought modulation. A step wise discriminant function analysis was done using the 12 scores of Children's Social Functioning and children's sex as potential predictor. Four of these variables were selected (Table 4) and determined two significant functions (Function 1 = c2 (12)=37.26, p<.01, 64% of total variance: Function 2 = c2 (6)=14.35, p<.03, 31% of total variance).

Figure 1 : Modes of social thought

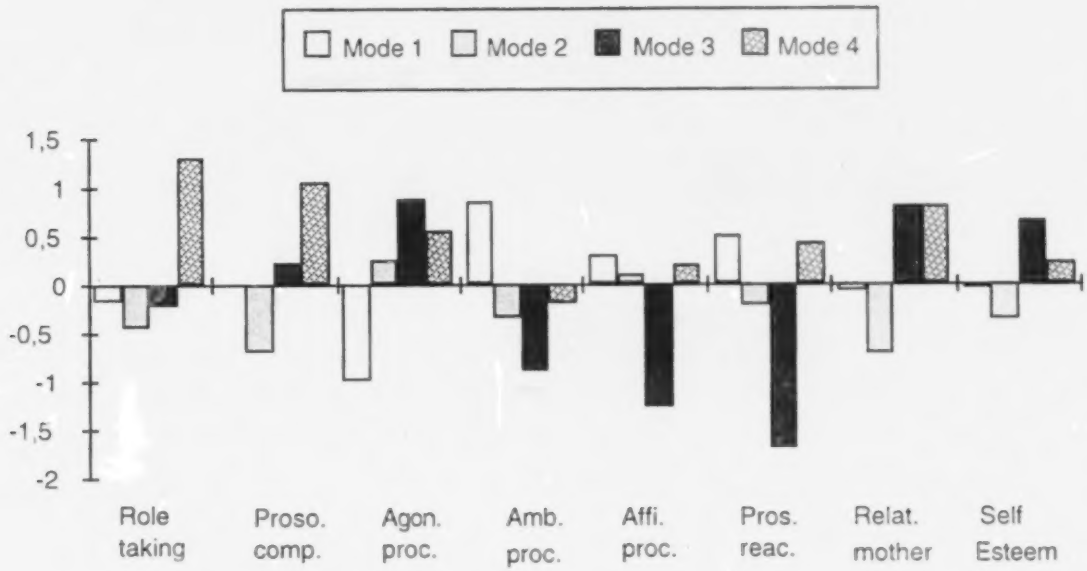

TABLE 4
CORRELATIONS BETWEEN BEHAVIORAL VARIABLES AND DISCRIMINANT FUNCTION

Selected variables	Wilks and p	Correlations with Function 1	Correlations with Function 2
Interaction with adults	.67 (.01)	**.82***	**.33***
Constructive play	.53 (.04)	**.33***	-.13
Neutral affect	.77 (.01)	-.19	**.96***
Sex	.60 (.01)	.06	.06

* Only variables with correlation indices **>.32** are used for function interpretation.

In general, the discriminant analysis correctly assigned 51% of the subjects to their respective modes of social thougnt (Table 5). On the other hand, only 28% of mode 2 children were correctly classified, which is what is expected by chance only.

TABLE 5

Social thought classification results

		Predicted group membership			
Actual group	N	1	2	3	4
1. Cohesion centered	22	**13**	3	2	4
		(59.1%)	(13.6%)	(9.1%)	(18.2%)
2. Insecure-self-centered	18	5	**5**	6	2
		(27.8%)	**(27.8%)**	(33.3%)	(11.1%)
3. Conflict centered	8	1	0	**6**	1
		(12.5%)	(0%)	**(75.0%)**	(12.5%)
4. Socio-centered	15	5	1	1	**8**
		(33.3%)	(6.7%)	(6.7%)	**(53.3%)**
Total	63	24	9	15	15

Total correctly classified = 50.79%

Table 6 shows social thought modal variation on the two significant discriminant functions.

TABLE 6

GROUPS MEANS ON DISCRIMINANT FUNCTION

Functions	**Mode 1**	**Mode 2**	**Mode 3**	**Mode 4**	**F**
Function 1	-0.51	0.49	**1.01**	-0.38	6.77**
Function 2	-0.22	-0.36	-0.23	**.88**	5.21**

** p<.01

DISCUSSION

The central objective of this study was to draw interdependent relationships between preschoolers' social functioning and their modes of social thought. First, the variables/subjects ratio argues for a cautious interpretation of the present results that showed a discrimination of conflict centered and socio-centered children. If activity of both groups implicated more interaction with adults, nevertheless, the first group was more involved in constructive play with objects while the other was more affectively neutral and reflexive.

A sociogenetic approach to social information processing suggests that adult interaction may play a different role in the social regulation of these two types of children. The implication of adults with conflict centered children may be driven by the way they process information and interact with their peers. Indeed, on one hand, these children were more involved in constructive play which means that their activities are centered around objects. On the other hand, interactions between the variables revealed that transactions with adults was positively correlated with agonistic processing and negatively correlated with ambigous processing. Theses results suggest that children who usually play in activities involving objects tend to process social information in a conflict centered way. Since conflict in the preschool setting often implicates objects (Strayer et al. 1995), these children might be involved in more conflict episodes which would explain their greater implication with adults.

Socio-centered children are also seen with adult but they display a more neutral affective state. This last variable is negatively correlated with social activity, symbolic play, positive affect and negative affect while positively correlated with perspective taking, prosocial comprehension and a positive representation of relation with the mother. These children seem less socially and emotionally involved and more reflexive. A better regulation of emotions has been shown to facilitate reflexive thinking and social information processing (Crick et Dodge. 1994). This suggests that interaction with adults might play a different role with these children.

In line with a sociogenetic perspective (Cairns & Cairns, 1991; Pagé et al. 1998) applied to social information processing, both social and non-social activities of children in the preschool 'milieu', as well as their transactionnal emotional state, were implicated with individual differences in modes of social thought. Future studies should investigate the exact nature of adult mediation in the preschool setting to clarify the sociogenetic processes implicated in the relation between action and social thought.

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